CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/NS/W.No.14/CSR.3/791b/CEMENT/2014-15

Date: 19.03.2015

TEST REPORT ON CEMENT

*** CUSTOMER**	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
***AGENCY**	:	**Mr. N. Shivananda,** No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.
***NAME OF THE WORK**	:	Improvements to Roads and Drain at 5th B Cross Diffence Colony in Ward No.14, Bagalagunte, BBMP, Bangalore.
REFERENCE	:	BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 17.03.2015
SAMPLE ID	:	Cement – (Sample – 1)
SAMPLE RECEIVED ON	:	17.03.2015
PERIOD OF TESTING	:	17.03.2015 to 19.03.2015

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	30.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	140 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	465 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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Chief Executive Officer

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Job No.: CTCE/BBMP/NS/W.No.14/CSR.3/791b/SAND-Gradation/2014-15 : 19.03.2015

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Shivananda,**
No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.

*** Name of Work** : Improvements to Roads and Drain at 5th B Cross Diffence Colony in Ward No.14, Bagalagunte, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 17.03.2015

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates – (Sample – 1)

Sample Received on : 17.03.2015

Date of Testing : 19.03.2015

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	92.77	90-100	90-100	90-100	95-100
2.36	80.01	60-95	75-100	85-100	95-100
1.18	55.76	30-70	55-90	75-100	90-100
600 Micron	24.08	15-34	35-59	60-79	80-100
300 Micron	12.29	5-20	8-30	12-40	15-50
150 Micron	5.93	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-I specific limits.

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Job No.: CTCE/BBMP/NS/W.No.14/CSR.3/791b/AGG/GR/2014-15 : 19.03.2015

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Shivananda,**
No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.

*** Name of Work** : Improvements to Roads and Drain at 5th B Cross Diffence Colony in Ward No.14, Bagalagunte, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 17.03.2015

Technical Reference : IS : 2386 Part 1 -1963 RA-2007

Sample ID : Coarse Aggregates (40mm) – (Sample – 1)

Sample Received on : 17.03.2015

Date of Testing : 19.03.2015

Total Wt. of Aggregates in gms= **10000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	96.90	95-100	85-100
20	45.65	30-70	0-20
10	22.00	10-35	0-5
4.75	3.40	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under graded specific limits.

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Job No.: CTCE/BBMP/NS/W.No.14/CSR.3/791b/CC Solid Block/2014-15 : 23.03.2015

TEST REPORT ON SOLID CONCRETE BLOCKS

* Customer	: **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
* Agency	: **Mr. N. Shivananda,** No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.
* Name of the Work	: Improvements to Roads and Drain at 5th B Cross Diffence Colony in Ward No.14, Bagalagunte, BBMP, Bangalore.
Reference	: BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 17.03.2015
Sample Received on	: 17.03.2015
Date of Testing	: 23.03.2015
Size of Blocks	: 400mm x 200mm x 200mm
Cross Sectional Area	: 80000 mm^2
Technical Reference	: IS: 2185 (Part 1) - 2005
No. of Blocks Tested	: 08

Sl.No.	Block ID	Wt. in Kg	Failure load (KN)	Compressive strength (N/mm^2)	Requirement as per IS 2185 (Part 1) - 2005
1	Block 1	36.32	262.8	3.29	Minimum required Compressive Strength of Individual Units 3.20 N/mm^2
2	Block 2	34.58	263.4	3.29	
3	Block 3	35.47	261.4	3.27	
4	Block 4	34.65	263.9	3.30	
5	Block 5	35.92	260.8	3.26	
6	Block 6	35.26	264.7	3.31	
7	Block 7	36.58	262.8	3.29	
8	Block 8	34.87	263.4	3.29	

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Job No.: CTCE/BBMP/NS/W.No.14/CSR.3/791b/Pre slab/2014-15 06.04.2015

TEST REPORT ON CONCRETE CORE (PRECAST SLAB)

*** Name of Client**	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
*** Name of Agency**	:	**Mr. N. Shivananda,** No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.
*** Name of work**	:	Improvements to Roads and Drain at 5th B Cross Diffence Colony in Ward No.14, Bagalagunte, BBMP, Bangalore.
Referece	:	BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 17.03.2015
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Precast Slab
Sample received on		01.04.2015
Date of Testing	:	06.04.2015
Grade of Concrete	:	M_{20}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	82.00	0.410	2546.48	1.64	0.965	33.85	17.24	18.62	17.97	22.46
2	50.00	80.00	0.397	2527.38	1.60	0.960	33.50	17.06	18.43	17.69	22.11
3	50.00	81.00	0.403	2533.90	1.62	0.965	32.75	16.68	18.01	17.38	21.73

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Job No.: CTCE/BBMP/NS/W.No.14/CSR.3/791b/CUBE/2014-15 29.04.2015

TEST REPORT ON COMPRESSIVE STRENGHT OF CONCRETE CUBES

*** Client** : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. N. Shivananda,**
No.35, 2nd Cross, 1st A Main Road, Defiance Colony, Bagalagunte, Bangalore.

*** Name of the work** : Improvements to Roads and Drain at 5th B Cross Diffence Colony in Ward No.14, Bagalagunte, BBMP, Bangalore.

*** Reference** : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 17.03.2015

*** Sample ID** : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{15}

Compressive Strength as o : 28^{th} day

Sample Received on : 01.04.2015

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	01.04.2015	29.04.2015	8.263	375.2	16.68
2	01.04.2015	29.04.2015	8.385	384.5	17.09
3	01.04.2015	29.04.2015	8.452	397.8	17.68

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